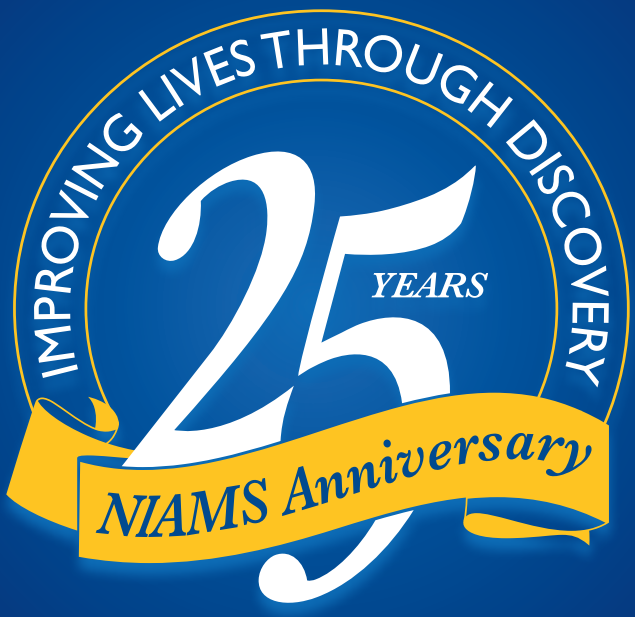


NIAMS 25th Anniversary Scientific Symposium

IMPROVING LIVES THROUGH DISCOVERY

June 13, 2011 • Lipsett Auditorium, Warren Grant Magnuson Clinical Center • NIH Campus

National Institute of Arthritis and Musculoskeletal and Skin Diseases

25th Anniversary Scientific Symposium

IMPROVING LIVES THROUGH DISCOVERY

On behalf of the researchers, clinicians, patients, families, advocates and staff that make up the NIAMS community, we would like to thank the following organizations for their generous contributions that made portions of this event possible:

FNIH Foundation for the National Institutes of Health

AAD American Academy of Dermatology 1938

American College of Rheumatology Education • Treatment • Research

The American Orthopaedic Society for Sports Medicine

ASBMR The American Society for Bone and Mineral Research

Arthritis Foundation® Take Control. We Can Help.™

Lupus Foundation of America, Inc.

MDA Muscular Dystrophy Association Fighting Muscle Disease

NMF@30 National Marfan Foundation • 1981–2011

National Osteoporosis Foundation

ORS Orthopaedic Research Society

Scleroderma Research Foundation

Society for Investigative Dermatology

Bone and Joint Initiative USA

LETTER FROM THE DIRECTOR

Dear Colleagues and Friends of the NIAMS,

As the Director of the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS), it is my pleasure to welcome you to the NIAMS 25th Anniversary Scientific Symposium: *Improving Lives Through Discovery*. Thank you for joining us for this event, which features scientific advances made possible with NIAMS support, highlights how these advances have improved patients' lives and addresses the future directions for NIAMS research.

Over the past two-and-a-half decades, this increased emphasis on research on arthritis and musculoskeletal and skin disorders has benefited countless Americans, as these diseases and conditions affect nearly every household in our Nation. While we take stock of what the Institute has accomplished, and what it can accomplish in the next 25 years, I remind you that our Nation's commitment to reducing the burden of arthritis and musculoskeletal and skin diseases extends well beyond the formal establishment of the NIAMS. The seeds of the Institute were planted 60 years ago, as an arthritis program in the National Institute of Arthritis and Metabolic Diseases. In 1972, Congress changed the Institute's name to the National Institute of Arthritis, Metabolism, and Digestive Diseases, and expanded the Institute's formal focus by making it the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases in 1980. That Institute formed a Division of Arthritis, Musculoskeletal and Skin Diseases, which, with the passage of the Health Research Extension Act of 1985, was elevated to the Institute that we celebrate today.

Each step in the NIAMS' evolution has relied on champions who believe that research can improve the quality of life for those affected by bone, joint, muscle and skin diseases. Some champions are well-known public figures. Others are members of established organizations for physicians, researchers or patients and their families. But our most ardent supporters are the American people who, regardless of any affiliation with a formal group, are touched by diseases and conditions covered by our mission. They are the people for whom we all work to ensure that new discoveries enable them to live longer and healthier lives.

We are proud of the scientific advances that our extramural and intramural researchers have made to help people who have diseases of the bones, joints, muscles and skin, and are excitedly looking forward to the discoveries they will make in the future. We thank you for joining us for this landmark symposium, and appreciate your contributions toward the Institute's success.

Stephen I. Katz, M.D., Ph.D.
Director, NIAMS

25th Anniversary Scientific Symposium

IMPROVING LIVES THROUGH DISCOVERY

Lipsett Auditorium, Warren Grant Magnuson Clinical Center
June 13, 2011

Agenda

7:30 – 8:30 a.m.	**Registration**
8:30 – 8:45 a.m.	**Introduction and Overview** **Stephen I. Katz, M.D., Ph.D.,** Director, National Institute of Arthritis and Musculoskeletal and Skin Diseases
8:45 – 9:00 a.m.	**Welcoming Address** **Francis S. Collins, M.D., Ph.D.,** Director, National Institutes of Health
9:00 – 9:30 a.m.	**Institute Champion** **The Honorable John Edward Porter,** Chairman, Research!America
9:30 – 10:45 a.m.	**Scientific Session and Patient Perspective Panel 1** **Richard Moxley, M.D.,** Department of Neurology, University of Rochester **Clifford Rosen, M.D.,** Center for Clinical and Translational Research, Maine Medical Center Research Institute **Priscilla Ciccariello,** National Marfan Foundation
10:45 – 11:15 a.m.	**Break**

Agenda *(cont.)*

11:15 – 12:30 p.m.	**Scientific Session and Patient Perspective Panel 2** **Daniel Kastner, M.D., Ph.D.,** National Human Genome Research Institute **John O'Shea, M.D.,** National Institute of Arthritis and Musculoskeletal and Skin Diseases **George Beach,** Beach Creative Communications
12:30 – 1:30 p.m.	**Networking Lunch**
1:30 – 2:45 p.m.	**Scientific Session and Patient Perspective Panel 3** **John Stanley, M.D.,** Department of Dermatology, University of Pennsylvania **Jane Salmon, M.D.,** Department of Medicine and Rheumatology, Mary Kirkland Center for Lupus Research, Hospital for Special Surgery **Amye Leong, M.B.A.,** Healthy Motivation
2:45 – 4:15 p.m.	**Scientific Session and Patient Perspective Panel 4** **Cato Laurencin, M.D., Ph.D.,** School of Medicine, University of Connecticut **Helen Lu, Ph.D.,** Department of Biomedical Engineering, Columbia University **Maria Morasso, Ph.D.,** Developmental Skin Biology Section, National Institute of Arthritis and Musculoskeletal and Skin Diseases **Emily Smith,** Arthritis Foundation
4:15 – 4:30 p.m.	**NIAMS Coalition** **Annie Kennedy,** Muscular Dystrophy Association **Tiffany Schmidt, J.D., M.B.A.,** American College of Rheumatology
4:30 – 4:45 p.m.	**Closing Remarks**
4:45 – 5:45 p.m.	**Reception/Poster Session**
6:30 – 8:30 p.m.	***Bringing Medicine and Science to the Public:*** *A Conversation With Diane Rehm* Diane Rehm, *The Diane Rehm Show*, National Public Radio

AGENDA

Stephen I. Katz, M.D., Ph.D.

Director, National Institute of Arthritis and Musculoskeletal and Skin Diseases

Stephen I. Katz has been Director of the National Institute of Arthritis and Musculoskeletal and Skin Diseases since August 1995, and is also a Senior Investigator in the Dermatology Branch of the National Cancer Institute. Dr. Katz has focused his studies on immunology and the skin. Dr. Katz has trained a large number of outstanding immunodermatologists in the U.S., Japan, Korea and Europe. He has served many professional societies in leadership positions, including as Secretary-General of the 18th World Congress of Dermatology in New York in 1992, and as President of both the International League of Dermatological Societies and the International Committee of Dermatology. Dr. Katz has also served on the editorial boards of several clinical and investigative dermatology journals, as well as several immunology journals. He has received many honors and awards, including the Distinguished Executive Presidential Rank Award.

Francis S. Collins, M.D., Ph.D.

Director, National Institutes of Health

Francis S. Collins is the Director of the National Institutes of Health (NIH). In that role he oversees the work of the largest supporter of biomedical research in the world, spanning the spectrum from basic to clinical research.

Dr. Collins is a physician-geneticist noted for his landmark discoveries of disease genes and his leadership of the international Human Genome Project, which culminated in April 2003 with the completion of a finished sequence of the human DNA instruction book. He served as Director of the National Human Genome Research Institute at the NIH from 1993 to 2008.

Before coming to the NIH, Dr. Collins was a Howard Hughes Medical Institute investigator at the University of Michigan. He is an elected member of the Institute of Medicine and the National Academy of Sciences, was awarded the Presidential Medal of Freedom in November 2007, and received the National Medal of Science in 2009.

The Honorable John Edward Porter

Chairman, Research!America's Board of Directors

John Edward Porter is a partner in the Washington law firm of Hogan Lovells. He served 21 years as U.S. Congressman from the 10th District in Illinois, where he served on the Appropriations Committee, and as chair of the Subcommittee on Labor, Health and Human Services and Education. Under his subcommittee's jurisdiction were all the federal government's health programs and agencies, along with all of the education programs and agencies.

He chairs Research!America and is vice-chairman of the Foundation for the National Institutes of Health. He is a member of the boards of the Public Broadcasting Service (PBS) Foundation and the Chicago Botanic Garden. Porter is a member of the Institute of Medicine, the Bretton Woods Committee, the Inter-American Dialogue and the Council on Foreign Relations. Previously he served on boards of the Brookings Institution, the RAND Corporation, the American Heart Association and the John F. Kennedy Center for the Performing Arts. Among the more than 275 awards for his service in Congress is the Mary Wood Lasker Award for Public Service.

Before his election to Congress, Porter served in the Illinois House of Representatives and prior to that as an Honor Law Graduate Attorney with the U.S. Department of Justice in the Kennedy Administration. He attended M.I.T. and is a graduate of Northwestern University and the University of Michigan Law School with distinction. Porter has nine honorary degrees.

"Medical and scientific research are absolutely essential to America's future – for our health and our economy. Only with a strong, sustained investment in science will our children and grandchildren live in times of strong job growth in knowledge-based industries that will bring us all better health and better quality of life."

– The Honorable John Edward Porter
June 2nd, 2010

Richard Moxley, M.D.

Department of Neurology, University of Rochester

Richard Moxley is Professor of Neurology and Pediatrics at the University of Rochester and Director of the Wellstone Muscular Dystrophy Center. After graduating from Harvard University and the University of Pennsylvania Medical School, he completed an internship in Pennsylvania and then a Heart Disease and Stroke Control Program at NASA headquarters. His residency was in neurology at Harvard Medical Center and his fellowship was in medicine at the Johns Hopkins University. He completed a postdoctoral NIH special fellowship in endocrinology and metabolism at Johns Hopkins. Dr. Moxley is also a former member the NIAMS Advisory Council. With support from the NIH, he initiated the National Registry of DM [myotonic dystrophy] and FSHD [facioscapulohumoral dystrophy] Patients and Family Members, a tool investigators can use to incorporate affected family members into their research. He has published numerous articles in professional journals and serves on many advisory boards and committees.

Clifford J. Rosen, M.D.

Center for Clinical and Translational Research, Maine Medical Center Research Institute

Clifford Rosen is Director of Clinical and Translational Research and Senior Scientist at Maine Medical Center's Research Institute. Dr. Rosen is the founder and former director of the Maine Center for Osteoporosis Research and Education, and he has overseen numerous phase II and III clinical trials, funded both privately and through the NIH. He is a member and former chairman of the FDA Advisory Panel on Endocrinologic and Metabolic Drugs and served on the NIAMS Advisory Council. Dr. Rosen has also served as chairman of the NIH Review Panel for Skeletal Biology and Bone Diseases, and he is a past president of the American Society for Bone and Mineral Research (ASBMR). Dr. Rosen's research interests include the genetic regulation of insulin-like growth factor relative to skeletal metabolism, parathyroid hormone as an anabolic therapy and the relationship between marrow adipogenesis and osteoblastogenesis. He earned his M.D. at the State University of New York at Syracuse.

Priscilla Ciccariello

National Marfan Foundation

Priscilla Ciccariello, Chairwoman Emeritus of the National Marfan Foundation (NMF), has played a significant role in the formation of key collaborations in the genetic disorders community worldwide, vaulting her to leadership positions with a number of organizations. In 1999, she was appointed to a 4-year term on the NIAMS Advisory Council. She is a founding member and President of the International Federation of Marfan Syndrome Organizations (IFMSO), as well as a founder and Co-President of the Coalition for Heritable Disorders of Connective Tissue (CHDCT).

In additional volunteer positions over the years, Ms. Ciccariello has served on the boards of directors for the National Organization for Rare Disorders, the Council of Regional Genetic Networks and the Alliance of Genetic Support Groups (now the Genetic Alliance). She was also a member of former New York Congressman Robert J. Mrazek's health advisory committee. She continues to devote time and energy to the IFMSO, the CHDCT and the NMF, and advocates on behalf of research, which continues to be her lifelong commitment.

Daniel Kastner, M.D., Ph.D.

National Human Genome Research Institute

Daniel Kastner obtained his A.B. in philosophy from Princeton University and an M.D. and Ph.D. from Baylor College of Medicine. After completing an internal medicine residency and chief residency at Baylor, Dr. Kastner came to the NIH in 1985 as a rheumatology fellow. Based on a chance encounter with a patient with familial Mediterranean fever (FMF) early in his fellowship, Dr. Kastner has studied genetic disorders of inflammation at the NIH for over 25 years. In 1992, his lab mapped the gene for FMF and subsequently discovered an inherited condition they named TRAPS (TNF receptor-associated periodic syndrome). Dr. Kastner's group also proposed the now widely accepted concept of autoinflammatory disease to denote disorders of innate immunity. Dr. Kastner was Clinical Director of the NIAMS Intramural Research Program from 2005 to 2010 before becoming Scientific Director at the National Human Genome Research Institute. In 2010, Dr. Kastner was elected to the National Academy of Sciences.

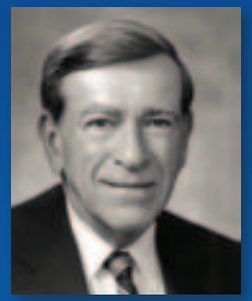
MILESTONES

NIAMS 25th Anniversary Milestones

IMPROVING LIVES THROUGH DISCOVERY

NATIONAL INSTITUTE OF ARTHRITIS AND MUSCULOSKELETAL AND SKIN DISEASES

1986



Lawrence E. Shulman, M.D., Ph.D.

The **NIAMS is established and appoints its first director,** Lawrence E. Shulman, M.D., Ph.D.

The **NIAMS Coalition,** a group of more than 70 professional and voluntary organizations, is founded and continues to serve as a vital liaison to Congress, researchers, patients and the public.

1987

Researchers discover dystrophin **gene defects that cause Duchenne muscular dystrophy,** spurring progress for gene therapy research.

The **NIAMS Information Clearinghouse is launched** and serves as a centralized source of information on arthritis and musculoskeletal and skin diseases for patients and health care providers.

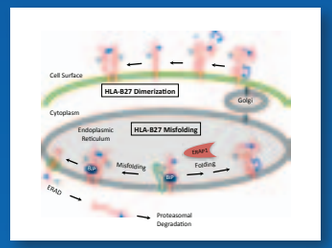
1989

The NIAMS holds its **first NIAMS Consensus Development Conference** on sunlight, ultraviolet radiation and the skin. Future conferences focused on optimal calcium intake, total hip replacement, total knee replacement and osteoporosis.

1990

Patient and technician with DXA machine.

The NIAMS-funded **Study of Osteoporotic Fractures** helps doctors identify people at high risk for osteoporosis.



HLA-B27 misfolding, which may lead to disease.

Researchers create an **animal model for ankylosing spondylitis** by introducing the human *HLA-B27* gene into rats.

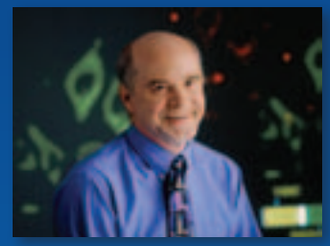
1992

Gene defects are identified that cause inherited skin disorders, including epidermolysis bullosa, leading to more specific diagnostic tests and spurring gene therapy research.

Nanofiber-based engineered cartilage.

Scientists discover **proteins that regulate bone growth and repair,** paving the way for bone grafting and cartilage regeneration advances.

1994



John O'Shea, M.D., NIAMS Scientific Director.

A team of intramural researchers **identify an immune system enzyme, Jak3,** which leads to the discovery of a genetic mutation causing severe combined immunodeficiency and the development of new therapeutic targets.

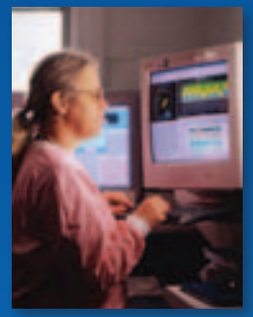
The NIAMS, with other federal and NIH partners, launches the **NIH Osteoporosis and Related Bone Diseases ~ National Resource Center** to increase awareness of these conditions.

1995

Stephen I. Katz, M.D., Ph.D.

Stephen I. Katz, M.D., Ph.D., becomes the **second director of the NIAMS.**

1996



Elaine Remmers, Ph.D., using high-throughput SNP genotyping system.

Major histocompatibility complex gene is identified by intramural researchers and partners as the single most predisposing factor for autoimmune diseases.

MILESTONES

1997

A commercial chip used to perform genetic tests.

For the first time, researchers locate a gene on chromosome 1 that predisposes people to systemic lupus erythematosus, ushering in a **new era of lupus genetics research.**

Dan Kastner, M.D., Ph.D.

The gene for **Familial Mediterranean Fever is discovered** by intramural researchers and partners, which leads to their later identification of gene mutations that cause TNF receptor-associated periodic syndromes.

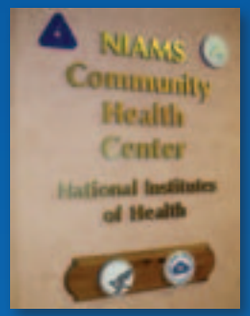
1999

Research funded by the NIAMS and others on the disease processes of rheumatoid arthritis results in an entirely **new class of rheumatic disease treatments,** named biologic response modifiers.

2000

Nicole Plass, R.N., B.S.N., M.P.A., with a patient.

The NIH opens a **pediatric rheumatology clinic** coordinated by the NIAMS at the Warren Grant Magnuson Clinical Center in Bethesda, Md., to diagnose, evaluate and treat children with arthritis and other rheumatic diseases.



The NIAMS and Washington, D.C.-area community representatives open a **new community-based research center** in D.C.'s Cardozo neighborhood to address health disparities in rheumatic diseases.

2001

The NIAMS, NINDS, NICHD and the Muscular Dystrophy Association join forces to fund the **first cooperative research centers for the muscular dystrophies.**

Technician with patient in MRI machine.

A unique public-private partnership, the **Osteoarthritis Initiative, is launched** to speed discovery of biological markers for osteoarthritis.

2003

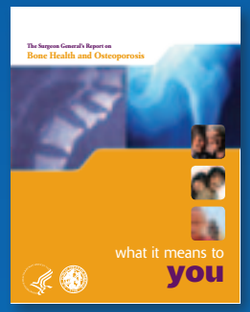
Advances in osteoporosis research highlight that parathyroid hormone and alendronate administered in combination are no better for osteoporosis than either alone.

2004

In a discovery with implications for wound healing and regenerative medicine, researchers define the characteristics of the **hair follicle stem cells that are responsible for their self-renewal,** and the factors in the hair follicle microenvironment that contribute to stem cell pluripotency.

An assay plate used in the genotyping system to determine disease susceptibility.

A gene variant is found that increases susceptibility to **juvenile arthritis.**



The **Surgeon General's Report on Bone Health and Osteoporosis,** a trans-HHS effort led by the NIAMS to draw bone science experts together and make public the known science on bone health, is published.

2006

NOMID/DIRA clinical and laboratory teams.

Intramural researchers discover new treatments for the autoinflammatory diseases neonatal-onset multisystem inflammatory disease (NOMID) and deficiency of the interleukin-1 receptor antagonist (DIRA) after finding genetic mutations that cause a protein imbalance.

2007

A study supported by the NIAMS finds the **anticonvulsant medication gabapentin effective for treating fibromyalgia** pain and other symptoms.

2008

Doctor with patient showing model of spine.

Two-year results from NIAMS' **Multicenter Spine Patient Outcomes Research Trial (SPORT)** reveal the effectiveness of surgical versus nonsurgical treatment approaches for three common back conditions.

2009

The NIAMS **Multicultural Outreach Initiative is launched** to bring together partners to address disparities in access to health information across racial, ethnic and underserved populations.

2011

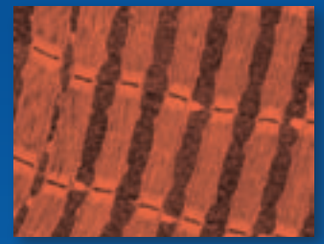


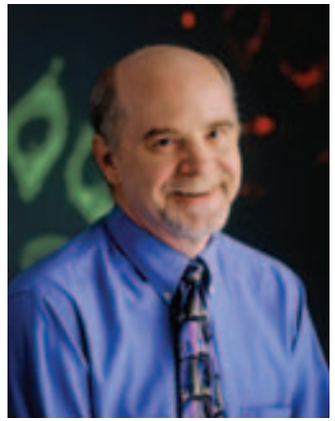
Illustration of muscle layers.

Research partly funded by the NIAMS identifies two genetic variations that start the disease process in **facioscapulohumeral muscular dystrophy,** enabling scientists to design treatment research strategies.

NIAMS
National Institute of Arthritis and Musculoskeletal and Skin Diseases

John O'Shea, M.D.

National Institute of Arthritis and Musculoskeletal and Skin Diseases



John J. O'Shea has been a physician and immunologist at the NIH for 30 years, where he has made fundamental discoveries regarding the molecular basis for cytokine signaling, the pathogenesis of primary immunodeficiencies and the genetic basis of autoinflammatory disorders. He was awarded a U.S. patent related to generating Janus family kinase inhibitors as a new class of immunosuppressive drugs and is an Institute for Scientific Information (ISI) "Highly Cited Researcher." Dr. O'Shea has been the recipient of numerous awards, including recently receiving the Public Lecture Award sponsored by the Irish Society for Immunology.

Dr. O'Shea graduated Phi Beta Kappa from St. Lawrence University in New York and received an M.D. from the University of Cincinnati. He did a residency in internal medicine at the State University of New York (SUNY) Upstate Medical University followed by subspecialty training in allergy and immunology at the NIH. After postdoctoral training, he started his own lab at the NIH in 1989. He was appointed Scientific Director of the NIAMS Intramural Research Program in 2005. Dr. O'Shea is board certified in internal medicine and allergy and immunology.

George Beach

Beach Creative Communications

George Beach, a native New Yorker, earned a Bachelor of Fine Arts in advertising design from The University of the Arts in Philadelphia in 1958. He studied drawing and painting under Andre Treves in 1962 at L'Academie de la Grande Chaumière in Paris.

Nineteen years before the NIAMS was founded, Mr. Beach was diagnosed with rheumatoid arthritis. He was devastated by the news. He visualized his life and promising future as a fine artist, founder of one of the nation's first African-American-owned advertising agencies, a newlywed, new father and proud homeowner all going dark and dreary.

At the onset of the disease, Mr. Beach endured prolonged periods of severe, crippling pain, living through countless surgeries, joint replacements and several major complications. How could this be? He was healthy, highly motivated and a creative person who thrived on success. Mr. Beach was determined that rheumatoid arthritis wouldn't shut him down.

Today, Mr. Beach is 74 years old and full of life, art, creativity and commitment to rheumatoid arthritis patient advocacy, including serving as a former NIAMS Advisory Council member. He is thriving!

John Stanley, M.D.

Department of Dermatology, University of Pennsylvania

John Stanley received his B.A., summa cum laude in physics, from Cornell University and his M.D. from Harvard Medical School. He trained in dermatology at New York University, then as a Visiting Scientist in the Dermatology Branch at the National Cancer Institute. He has been a Professor of Dermatology at the Uniformed Services University of the Health Sciences, a Senior Investigator in the Dermatology Branch of the National Cancer Institute, and Professor and Chairman of the Department of Dermatology at the University of Pennsylvania. He has also served as a NIAMS Advisory Council member. Dr. Stanley's clinical and research expertise focuses on understanding the pathophysiology of autoimmune blistering diseases of the skin.

Dr. Stanley has received numerous awards and honors for his work, including election to the American Society for Clinical Investigation, the Association of American Physicians and the Institute of Medicine of the National Academy of Sciences.

Jane Salmon, M.D.

Department of Medicine and Rheumatology, Mary Kirkland Center for Lupus Research

Jane Salmon graduated from New York University and earned an M.D. in 1978 from the College of Physicians and Surgeons of Columbia University. She trained in rheumatology at the Hospital for Special Surgery where she is currently the Collette Kean Research Chair and Co-Director of the Mary Kirkland Center for Lupus Research. She is also Professor of Medicine at Weill Cornell Medical College. Dr. Salmon's research has focused on elucidating mechanisms of tissue injury in lupus and other autoimmune diseases. Her basic and clinical studies have expanded our understanding of pregnancy loss and organ damage in systemic lupus erythematosus and the determinants of disease outcome in lupus patients with nephritis, pregnancy and cardiovascular disease.

Amye Leong, M.B.A.

Healthy Motivation

Amye Leong is an internationally recognized patient advocate, speaker, author and educator. She is President/CEO of Healthy Motivation, a health education/advocacy consulting firm in California and Paris, France. Diagnosed with rheumatoid arthritis at age 18 and later with Sjögren's syndrome and osteoporosis, she became wheelchair-bound within 8 years. Ms. Leong has received numerous awards, including the 2001 President's Volunteer Service Award, and was named one of the Arthritis Foundation's America's Fifty Heroes.

She has served on the NIAMS Advisory Council, chaired the Surgeon General's National Council on Self-Help and Public Health and was the international spokesperson for the United Nations Bone and Joint Decade. Ms. Leong is currently a member of the NIH Director's Council of Public Representatives. She earned a B.A. in communications from the University of California and an M.B.A. from Purdue University.

Cato Laurencin, M.D., Ph.D.

School of Medicine, University of Connecticut

Cato Laurencin is Vice President for Health Affairs at the University of Connecticut and Dean of the University of Connecticut School of Medicine. Dr. Laurencin is also Van Dusen Endowed Chair in Academic Medicine, Distinguished Professor of Orthopaedic Surgery, and Professor of Chemical, Materials and Biomolecular Engineering at the University of Connecticut. Dr. Laurencin is an elected member of the Institute of Medicine of the National Academy of Sciences and the National Academy of Engineering. He is also a former NIAMS Advisory Council member.

Dr. Laurencin earned his B.S.E. in chemical engineering from Princeton University, his M.D., magna cum laude, from Harvard Medical School and his Ph.D. in biochemical engineering/biotechnology from the Massachusetts Institute of Technology.

Dr. Laurencin's career has had a heavy emphasis on mentoring others. He received the Presidential Award for Excellence in Science, Math and Engineering Mentoring from President Barack Obama in ceremonies at the White House in 2010.

Helen Lu, Ph.D.

Department of Biomedical Engineering, Columbia University

Helen H. Lu is Associate Professor of Biomedical Engineering and Director of the Biomaterials and Interface Tissue Engineering Laboratory at Columbia University, with a joint appointment at the College of Dental Medicine. Dr. Lu's research focuses on interface tissue engineering and the formation of complex tissue systems, with applications in integrative soft tissue repair and total joint regeneration. She is also active in the design of composite biomaterials for orthopaedic/dental applications. Her group has published over 50 original research articles and numerous reviews and book chapters. Her research has been recognized with many awards, including the Early Faculty Career Award in Translational Research from the Wallace H. Coulter Foundation, the Young Investigator Award from the Society for Biomaterials and the Presidential Early Career Award for Scientists and Engineers. She was recently elected as a fellow of the American Institute for Medical and Biological Engineering.

Maria Morasso, Ph.D.

National Institute of Arthritis and Musculoskeletal and Skin Diseases

Maria Morasso is Chief of the Developmental Skin Biology Section (DSBS) in the NIAMS Intramural Research Program and Adjunct Scientist at the National Cancer Institute. The DSBS research focuses on the function of proteins with essential roles in skin development, and on a group of human heritable pathological disorders defined as ectodermal dysplasias. Dr. Morasso's laboratory has developed a mouse model of the human pathology associated with mutations in DLX3 that may provide a molecular understanding of how mutations in genes cause ectodermal dysplasias and lead to improved therapeutics.

Dr. Morasso received her B.S. in biology from the Universidad Simon Bolivar in Caracas, Venezuela, and her Ph.D. in biochemistry from the Instituto Venezolano de Investigaciones Cientificas, also in Caracas. Dr. Morasso came to the NIH to pursue postdoctoral training, was recruited to the NIAMS as a tenure-track investigator in May 2000 and was tenured in 2008.

Emily Smith

Arthritis Foundation

Emily Smith was diagnosed with juvenile arthritis in the fall of 1994. Since then, Ms. Smith has tried multiple medications and her arthritis is currently stable. She has been actively involved with the Arthritis Foundation for the past 10 years and will continue her work this summer at the national conference in Crystal City, Va. and Camp JRA in Millville, Pa. She just completed her freshman year in the nursing program at York College of Pennsylvania. She is an active member of the Phi Mu fraternity of women.

Annie Kennedy

NIAMS Coalition Co-Chair
Muscular Dystrophy Association

Annie Kennedy is Senior Vice President of Advocacy for the Muscular Dystrophy Association, overseeing the organization's legislative and health policy efforts. Ms. Kennedy represents the Muscular Dystrophy Association on national and international policy efforts, and she currently serves on more than a dozen advisory committees. Ms. Kennedy is also responsible for several national initiatives being led by the Muscular Dystrophy Association, including the Transitional Services Program for young adults.

Tiffany Schmidt, J.D., M.B.A.

NIAMS Coalition Co-Chair
American College of Rheumatology

Tiffany Schmidt is Vice President of Socioeconomic Affairs at the American College of Rheumatology where she oversees government affairs and physician practice management. Ms. Schmidt works with rheumatologists to educate members of Congress on rheumatic diseases. She has a law degree from Hamline University School of Law in Saint Paul, Minn., and an M.B.A. from the University of St. Thomas.

ACKNOWLEDGMENTS

Many thanks to the NIAMS staff who led the Institute-wide effort to celebrate 25 years of progress and promise for patients whose lives are affected by diseases of the bones, joints, muscles and skin.

Janet Austin, Ph.D., Co-Chair
Anita Linde, M.P.P., Co-Chair
Melanie Martinez, M.P.A., Coordinator

Branden Brough, Ph.D.
Justine Buschman, M.S.
Mario Cerritelli, Ph.D.
Stephanie Craver
Nancy Garrick, Ph.D.
Gail Hamilton
Kaitaia Huynh
Stephanie Kreider, M.S.W., M.Ed.
Sherry Meltzer
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Special appreciation to the staff of the NIAMS Office of Communications and Public Liaison and the Office of Science Policy and Planning whose hard work was critical to the planning of this event.

The NIAMS also wishes to acknowledge the IQ Solutions leadership and staff for their diligent assistance and creative talents in working on all commemorative materials and event support.


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